

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The specification does not include proper section headings and does not include brief description of the drawings, see guidelines below.

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

2. Claims 2, 7 are objected to because of the following informalities:
3. Claim 2 recites the limitation "the data" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.
4. Claim 7 recites the limitation "the data" in line 2. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. **Claims 1-20** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
7. **Claims 1, 9** recite the limitation: wherein the searching is performed with a search depth matched to a speed of the reading-in of disk sectors such that the reading-in of disk sectors is not interrupted". However, the specification does not described how to determine "a search depth" to match "speed of the reading-in of disk sectors such that the reading-in of disk sectors is not interrupted", in such a way as to enable one

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skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention without undue experimentation.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1-20** are rejected under 35 U.S.C. 102(e) as being anticipated by Hinshaw et al. (US 2004/0117037 A1), hereinafter "**Hinshaw**".

As per claim 1, Hinshaw teaches a method for searching a database on disk storage medium comprising:

- "executing a first search step, the first search step including reading-in disk sectors of the disk storage medium and searching the database records stored in said disk sectors read-in" at [0135], [0333], [0341], [0403];
- "wherein the searching is performed with a search depth matched to a speed of the reading-in of disk sectors such that the reading-in of disk sectors is not interrupted" at [0341];
- "provision of an intermediate result from the first search step" at [0341], [0403];

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- “executing of a second search step in the intermediate result from the first search step” at [0404]
- “provision of an end result from the second search step” at [0395].

As per claim 2, Hinshaw teaches the method of claim 1, wherein “the processing speed for the data in the first search step is at least as high as the read-in speed for the data” at [0341].

As per claim 3, Hinshaw teaches the method of claim 1, wherein “only a text search is performed in the first search step” at [0341].

As per claim 4, Hinshaw teaches the method of claim 1, wherein “the first search step involves skipping to search locations from an index list in descending or ascending order on the basis of sorting exclusively according to sector numbers of the disk sectors” at [0406].

As per claim 5, Hinshaw teaches the method of claim 1, wherein “the intermediate result comprises one or more subresults which are respectively searched in the second search step” at [0403]-[0404].

As per claim 6, Hinshaw teaches the method of claim 11, wherein “the database is dynamic and is available in fragmented form and in this context the individual

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fragments are read in successively and a read head skips exclusively in one direction between the fragments" at [0342], [0352].

As per claim 7, Hinshaw teaches the method of claim 1, wherein "the data are stored on the disk storage medium is ECC blocks" at [0354]-[0355].

As per claim 8, Hinshaw teaches the method of claim 1, wherein "the disk storage medium is an optical disk" at [0011].

As per claim 9, Hinshaw teaches an apparatus for searching a database on a disk storage medium comprising:

- "a search device for executing a first search step, the first search step including reading-in disk sectors of the disk storage medium and searching database records stored in said disk sectors read-in" at [0135], [0333], [0341];
- "wherein the searching is performed with a search depth matched to a speed of the reading-in of disk sectors such that the reading-in of disk sectors is not interrupted" at [0341];
- "a memory device for storing and providing an intermediate result from the first search step" at [0403] and Fig. 1;
- "the search device is also designed to execute a second search step in the intermediate result from the first search step and to provide an end result from the second search step" at [0404] and Fig. 7.

As per claim 10, Hinshaw teaches the apparatus of claim 9, wherein "the processing speed for the data in the search device in the first step is at least as high as the maximum or an instantaneous read-in speed for the data into the search device" at [0341].

As per claim 11, Hinshaw teaches the apparatus of claim 9, wherein "an exclusive text search can be performed in the search device during the first search step" at [0341].

As per claim 12, Hinshaw teaches the apparatus of claim 9, wherein "the first search step may involve the search device skipping to search locations from an index list in descending or ascending order on the basis of sorting exclusively according to sector numbers of the disk sectors" at [0342], [0352].

As per claim 13, Hinshaw teaches the apparatus of claim 9, wherein "the intermediate result which can be stored in the memory device comprises one or more subresults which can be searched by the search device in the second step" at [0403] and Fig. 1.

As per claim 14, Hinshaw teaches the apparatus of claim 9, wherein "the database is dynamic and is available in fragmented form and in this context the

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individual fragments can be read into the search device successively and a read head can skip exclusively in one direction between the fragments" at [0342], [0352].

As per claim 15, Hinshaw teaches the apparatus of claim 9. "wherein the search device and the memory device are suitable for processing ECC blocks" at [0354]-[0355].

As per claim 16, Hinshaw teaches the apparatus of claim 9, wherein "the disk storage medium is an optical disk" at [0011].

As per claim 17, Hinshaw teaches the method of claim 1, wherein "the first and second search steps are executed at least partly in parallel" at [0072].

As per claim 18, Hinshaw teaches the method of claim 17, wherein "the second search step is executed with lower priority than the first search step" at [0411].

As per claim 19, Hinshaw teaches the apparatus of claim 9, wherein "the first and second search steps are executed at least partly in parallel" at [0072].

As per claim 20, Hinshaw teaches the apparatus of claim 19, wherein "the second search step is executed with lower priority than the first search step" at [0411].

Response to Arguments

10. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Khanh B. Pham/
Primary Examiner
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January 7, 2010